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known. Prior art UUIDs typically comprise a reference to the IP address of the host that generated the UUID, a timestamp, and a randomly-generated component to ensure uniqueness.)		
As an example of the LBuuids disclosed herein, the node represented by the sample reputation in document 400 of FIG. 4A has the LBuuid 9.37.43.2-05/04/01-12:02:05:37-Netzero.net which is shown as the value of the "about" attribute 410 of <Description> tag 405.	NO	NO
In this example, the IP address component is "9.37.43.2", the date component is "05/04/ 01", the time component is "12:02:05:37", and the domain component is "Netzero.net".	NO	NO
As defined herein, this information indicates that the node's original IP address upon its first entry into the P2P network was "9.37.43.2", and that this initial entry into the network occurred on date "05/04/ 01" at time "12:02:05:37" in the network domain "Netzero.net".	NO	NO
This LBuuid will be used for identifying this particular node henceforth, as disclosed herein, enabling the node's reputation to be persisted and also allowing references to this node in content path traversal definitions to be resolved.	NO	NO
Note that, at a given point in time, the current IP address of the node represented by the LBuuid in FIG. 4A is not guaranteed to be that indicated in the LBuuid, and is more than likely some other value obtained from a dynamic address assignment mechanism	NO	NO

upon a subsequent entry into the P2P network.		
The LBuuid persistently representing a node is associated with the node's current IP address through a mapping stored in a resource set. (Resource sets are described below, with reference to FIG. 6.)	NO	NO
The <Description> tag 405 brackets the reputation information for this node. In the example, a child tag named <QuerySet> 415 is specified, and has a "stature" attribute.	NO	NO
In preferred embodiments, the stature attribute has a numeric value that indicates how successful (or unsuccessful) this node is at performing queries.	NO	NO
The stature attribute value is preferably specified as a non-integer value ranging between -1 and +1, where a negative stature value indicates a malicious node. Preferably, a corresponding "totalQueries" attribute is also specified, and its value is an integer indicating the total number of queries processed by the node.	NO	NO

A binding of a client device to a network application to a replica of a network application is a singular limitation made up of multiple address elements. In order for the references to teach this limitation there must be a teaching of the claimed relationship. The combination fails to teach the relationship between the three elements of the database specified in the claim.

The Office Action further states at page 6 first paragraph:

> Srivastava discloses a plurality of routers (abstract) that also allow client identifiers to be bind with server/router identifiers (replicas) (col. 4, ll. 59-63).
>
> The cited portion of Srivastava states:
>
> To address this problem, in an embodiment, a mapping of a client identifier to a server identifier is stored at the client side and server side in cookies. The cookies enable a device to determine if a new request has a past association with previous flows or a previously selected server.

The claim states "providing **in a router a database of bindings** of client devices to network applications to replicas of a network application." (emphasis added). Srivastava does not teach a binding between the three elements as claimed. Srivastava teaches a two way binding. The two way binding of Srivastava relates a client identifier with a server identifier. While Srivastava does teach a client identifier it does not teach the binding between all three elements as required by the claim.

Additionally, the binding taught by Srivastava "is stored at the client and server side in **cookies**." (emphasis added). Storing the elements in a cookie at either terminal location of a network path is not equivalent to storing the bindings in a database in a router.

> Burbeck also fails to teach a router with a database. Burbeck states:
>
> A servlet called a "router" receives an inbound SOAP request message, determines which code is required to carry out that request, deserializes objects required for that code, and invokes the code. When the invoked code completes execution, the router serializes the result into an outbound SOAP response message. (Burbeck Col. 9, lines 1-8)

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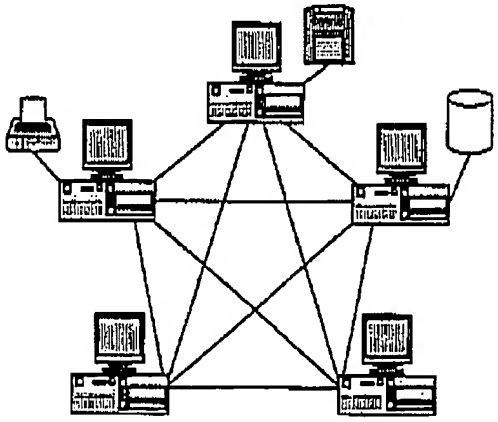
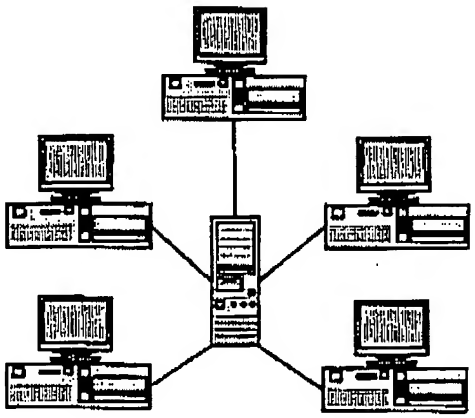
Applicant(s): LISKOV, et al.
Examiner: TUAN-KHANH PHAN
Group Art Unit: 2163

Burbeck acts as his own lexicographer in characterizing a servlet as a router. As one of ordinary skill in the art would appreciate, a router as used in Applicant's claim refers to a network device used to route and forward information in a network between network devices. A servlet "router" is not equivalent to a router as claimed. The servlet "router" is a script that runs on a web server in order to provide content. The servlet router is not a device for routing and forwarding information as commonly understood in the art. Being a servlet, it would likely be physically impossible to provide a database in the "router" implemented as a servlet. The servlet would simply not have the resources to maintain a database. Therefore, both Burbeck and Srivasta fail to teach a router with a database. Thus, the claims are not obvious over the cited art.

The combination of Srivastava and Burbeck is not functional. Srivastava teaches a client/server network configuration while Burbeck teaches a peer-to-peer network for file sharing.



Peer-to-Peer (P2P)



Client/Server

> The advantageous techniques of the present invention are discussed herein primarily as applied to file sharing (i.e. identifying which content is available from which nodes; remembering the path taken by particular content as it traverses the network; requesting content from a peer, and receiving that content; etc.) (Burbeck Col 6 lines 27-33)
>
> [A] method of routing data from a client through one or more load-balancing routers to a selected load-balanced server among a plurality of servers in a network. (Srivastava Col. 5, lines 30-32)

It is impossible to perform load balancing on the peer-to-peer file sharing connections taught by Burbeck. The purpose of the system taught by Burbeck is to allow peers to leave and re-enter the network without losing their identities. In Burbeck the peer-to-peer connection is used to retrieve specific data from a specific source. In Srivastava, specific content is retrieved from a selected one of a plurality of sources based upon the load of each server at the time of a request. Combining Srivastava with Burbeck would complicate the purpose of Burbeck and not allow Srivastava to serve its intended purpose of load-balancing. Srivastava would be unable to perform load-balancing since each peer does not serve the same content and is therefore not capable of accepting load-balancing connections. Each peer in a file sharing network serves unique content. Therefore, a request to a specific peer can only be successfully handled by that peer. Thus the combination of Burbeck with Srivastava is not functional.

For the above reasons, none of the claims are obvious over the combination of references. Thus, all the claims in condition for allowance.

Claim 5

This claim depends from claim 1 and thus is not obvious for at least the same reasons. Additionally, this claim recites entering or discarding a received update based on whether the least recent event number is in series with the event numbers in the database and/or is not in succession to the event number in the current version vector. Since none of the references describe providing the database of bindings in a router, it follows that none of the references describe the contents of the vector that is stored in the database. Thus it also follows that none of the references describe selectively entering or discarding a received update based on analyzing the contents of a received entry in light of the missing database records. Therefore this claim is not obvious for at least this additional reason.

Claim 6

This claim depends from claim 5 and thus is not obvious for at least the same reasons. Additionally, this claim recites retaining an entry based on a deterministic function applied to a portion of an entry only after it has been determined that the entry is in sequence and that the received entry has not expired and that the application identifiers do not match. None of the references teach any of these additional elements and therefore this claim is not obvious for at least this additional reason.

Claims 7 and 8

These claims depend from claim 6 and thus are not obvious for at least the same reasons. Additionally, these claims recite applying the deterministic function to either the application identifiers or the request identifiers. As described above,

none of the references describe applying any deterministic function, and thus it follows that none of the references teach the additional limitations of applying the missing deterministic function to data items that are not described in the references. Thus these claims are not obvious for this additional reason.

Conclusion

For the reasons set forth above, **claims 1-2 and 4-23** patentably and unobviously distinguish over the references and are allowable. An early allowance of these claims is earnestly solicited.

Respectfully submitted,

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